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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/631,035 | 07/28/2003 | Darryl C. Stein | G48-1386-1 | 9023 |
| 27123 | 7590 | 07/05/2006 | EXAMINER | |
| MORGAN & FINNEGAN, L.L.P. 3 WORLD FINANCIAL CENTER NEW YORK, NY 10281-2101 | | | BLAKE, CAROLYN T | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3724 | |

DATE MAILED: 07/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/631,035

Applicant(s)

STEIN ET AL.

Examiner

Carolyn T. Blake

Art Unit

3724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 7-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 March 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 9, 2006 has been entered.

Drawings

2. While the corrected drawings and Applicant's remarks were helpful in further understanding the invention, the location of mounting bracket 32 in FIG 1 is still not understood. It does not appear as though the mounting bracket would fit within the cylindrical housing of cutting head 20 as shown in FIG 1, and the bracket does not appear to be shown in this figure. Further clarification is required.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for

Art Unit: 3724

consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

3. The text of those sections in Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pearl (3,815,221) in view of Henninger (3,274,409), Balamuth et al (3,086,288), and Kuris (3,610,080).

Pearl discloses an apparatus for cutting sheet type work (30) comprising a blade (18) defining at least one sharpened edge; a frame (12) having a support surface (16) mounted thereon for carrying at least one layer of a sheet-type work material (30); a carriage (22) coupled to said frame (12) for movement back-and-forth there along in a first coordinate direction in response to commands issued from a controller (26); a cutter head (20) coupled to said carriage (22) for movement back-and-forth in a second coordinate direction also in response to commands issued from said controller (26), said second coordinate direction being approximately perpendicular to said first coordinate direction.

Pearl fails to disclose the means for actuating the blade or a resonator assembly. However, Henninger discloses a resonator assembly including: a magnetically permeable beam (12); an element (20/21) coupled to said beam (12); a magnetic pickup (14) coupled to said beam (12); at least one discrete magnet (32) positioned proximate said pickup (14), said magnet (32) and said pickup (14) defining an air gap there between; resonating means for moving said at least one discrete magnet (32) relative to said pickup (14) to create an alternating magnetic field, thereby causing said pickup (14) to vibrate, which in turn causes said beam (12) and said element (20/21) to vibrate. Furthermore, Henninger discloses the resonating means includes: a magnet retainer (25) having a plurality of magnets (32) coupled thereto; a motor; said magnet retainer (25) being rotatably coupled to said motor (by shaft 7); and wherein rotation of said motor and thereby said magnet retainer (25) causes at least one magnet (32) to pass by said pickup (14) at a known frequency thereby generating an alternating magnetic flux that in turn causes said element (12) to resonate. Henninger discloses a mounting bracket (16/16), said beam (12) being attached to and cantilevered from said mounting bracket (16/17). The Henninger resonator assembly is fairly small in size and lightweight, while still being powerful and efficient (see. col. 1, lines 35-36 and lines 42-43). In addition, Balamuth et al disclose advantages for using a vibrating blade in cutting operations, particularly for cutting fabrics and leather. Balamuth et al disclose a vibrating blade requires less force (col. 1, lines 45-49) and creates a cleaner cut (col. 1, lines 53-56) than a blade that is not vibrating. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a small,

Art Unit: 3724

lightweight, powerful, and efficient resonator assembly, as disclosed by Henninger, on the Pearl device for the purpose of vibrating the blade, which Balamuth et al disclose creates a clean cut with less force.

In addition, the modified device of Pearl fails to teach a controller as claimed. However, Kuris discloses an apparatus for cutting comprising a controller (15) for monitoring the vibration of a blade (13) and for compensating damping of said vibration of said blade by tuning said resonating means. This tuning can be performing manually or automatically, and allows for adjustment of the vibrating blade depending on the force of the work piece on the blade. See col. 3, line 72 to col. 4, line 8. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a controller, as taught by Kuris, on the modified Pearl device for the purpose adjusting the blade vibration in response to work piece strength.

Response to Arguments

5. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

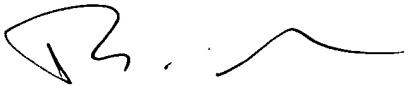
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carolyn T. Blake whose telephone number is (571) 272-4503. The examiner can normally be reached on Monday to Friday, 8:00 AM to 5:30 PM, alternating Fridays off.

Art Unit: 3724

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer D. Ashley can be reached on (571) 272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CB
June 15, 2006



BOYER D. ASHLEY
SUPERVISORY PATENT EXAMINER